

**Chapter 10 Cell Growth and Division****Section Review 10-1****Reviewing Key Concepts**

**Completion** *On the lines provided, complete the following sentences.*

1. The larger the cell, the more trouble it has moving enough nutrients and wastes across the \_\_\_\_\_.
2. As the length of a cell increases, its volume increases faster than its \_\_\_\_\_.
3. To avoid growing too large, cells regulate their size by \_\_\_\_\_.

**Short Answer** *On the lines provided, answer the following questions.*

4. What can happen if a cell were to get too large for the amount of DNA it has?  
\_\_\_\_\_  
\_\_\_\_\_
5. What substances must pass through a cell's membrane for the cell to continue to function?  
\_\_\_\_\_  
\_\_\_\_\_
6. How does a cell's ratio of surface area to volume change as the cell grows larger?  
\_\_\_\_\_  
\_\_\_\_\_
7. Why do cells divide?  
\_\_\_\_\_  
\_\_\_\_\_

**Reviewing Key Skills**

**Calculating** *Complete the following table.*

| Cell | Surface Area       | Volume             | Ratio of Surface Area to Volume |
|------|--------------------|--------------------|---------------------------------|
| 1    | 42 cm <sup>2</sup> | 8. _____           | 7:1                             |
| 2    | 78 cm <sup>2</sup> | 13 cm <sup>3</sup> | 9. _____                        |
| 3    | 10. _____          | 16 cm <sup>3</sup> | 5:1                             |